

ABSTRACT OF THE DISCLOSURE

An apparatus for detecting chemical substances which is high in sensitivity and selectivity is provided.

- 5 An organic acid or an organic acid salt is used to generate an organic acid gas from an organic acid gas generator 3 to be mixed with a sample gas for introduction into an ion source 4 for ionization, thereby obtaining a mass spectrum by a mass analysis
- 10 region 5. A data processor 6 determines the detection or non-detection of a specific m/z of an organic acid adduct ion obtained by adding a molecule generated from the organic acid to a molecule with specific m/z generated from a target chemical substance to be
- 15 detected based on the obtained mass spectrum. When there is an ion peak with the m/z of the organic acid adduct ion, the presence of the target chemical substance to be detected is determined, and an alarm is sounded.
- 20 False detection can be prevented.